In the claims:

1.(currently amended) A low visual noise pulse width modulation illumination control circuit for controlling the illumination of light-emitting diodes inside a liquid crystal display, comprising:

an illumination control pulse-generating unit, for receiving an illumination-adjusting signal and generating an illumination control pulse signal according to the illumination-adjusting signal, wherein a duty cycle of the illumination control pulse signal varies with time within a predetermined range; and

a DC/DC converter, coupled to the illumination control pulse-generating unit for driving the light-emitting diodes according to the illumination control pulse signal.

2. (original) The control circuit of claim 1, wherein the illumination control pulse-generating unit further comprises:

a noise generator, for generating a noise signal;

an analogue adder, coupled to the noise generator for receiving the illumination-adjusting signal and the noise signal to produce a noise signal loaded illumination-adjusting signal; and

a comparator, coupled to the analogue adder for comparing the noise signal loaded illumination-adjusting signal with a triangular wave to produce the

illumination control pulse signal.

3. (currently amended) The control circuit of claim 2, wherein ~~the level of~~ the noise signals can be ~~varied~~ generated by amplifying a thermal noise produced by a resistor comprised in the noise generator.

4. (currently amended) A low visual noise pulse width modulation illumination control circuit for controlling the illumination of light-emitting diodes inside a liquid crystal display, comprising:

an illumination control pulse-generating unit, for receiving an illumination-adjusting signal and generating an illumination control pulse signal according to the illumination-adjusting signal, wherein ~~the~~ a frequency of the illumination control pulse signal varies with time within a predetermined range; and

a DC/DC converter, coupled to the illumination control pulse-generating unit for driving the light-emitting diodes according to the illumination control pulse signal.

5. (original) The control circuit of claim 4, wherein the illumination control pulse-generating unit is implemented using a microprocessor.

6. (canceled)

7. (new) A low visual noise pulse width modulation illumination control circuit for controlling the illumination of light-emitting diodes inside a liquid crystal display, comprising:

an illumination control pulse-generating unit, for receiving an illumination-adjusting signal and generating an illumination control pulse signal according to the illumination-adjusting signal, wherein a phase shift of the illumination control pulse signal varies with time within a predetermined range; and

a DC/DC converter, coupled to the illumination control pulse-generating unit for driving the light-emitting diodes according to the illumination control pulse signal.

8. (new) A low visual noise pulse width modulation illumination control circuit for controlling the illumination of light-emitting diodes inside a liquid crystal display, comprising:

an illumination control pulse-generating unit, for receiving an illumination-adjusting signal and generating an illumination control pulse signal according to the illumination-adjusting signal, wherein a phase shift, a frequency and a duty cycle of the illumination control pulse signal varies with time simultaneously within a predetermined range; and

a DC/DC converter, coupled to the illumination control pulse-generating unit for driving the light-emitting diodes according to the illumination control pulse signal.